

## CERTAIN 1999-2003 MODEL YEAR WINDSTAR VEHICLES OPERATED IN CORROSION STATES — SUBFRAME FRONT LOWER CONTROL ARM REAR ATTACHING FLANGES AND REAR BODY MOUNT ATTACHMENTS INSPECTION AND REPAIR

### OVERVIEW

#### Interim Service Procedure

The interim service procedure involves inspecting four locations of the subframe. See Figure 1. These locations are the driver and passenger rear body mount sections of the subframe and the Lower Control Arm (LCA) rear attachment flanges that are welded to the subframe.

The purpose of these inspections is to determine if the vehicle:

- can be returned to the owner until reinforcement brackets for the permanent repair are available,
- must be “grounded” until reinforcement brackets for the permanent repair are available, or
- subframe is beyond repair and pictures must be sent to Digital Imaging (DI) for vehicle refund consideration.

The permanent repair (installation of reinforcement brackets) **cannot** be performed on the subframe of a vehicle that has any of the following conditions:

#### Subframe Rear Body Mount Area

- a subframe with a crack or perforation (hole) that is forward of the decision line.
- non-factory welds or welded reinforcements on sections of the subframe near the mount area.

**NOTE:** The decision line is a reference line 50 mm (2 in) from the edge of the tooling hole to the rear. The tooling hole is located approximately 64 mm (2.5 in) forward of the subframe rear body mount.

#### LCA to Subframe Rear Attachment Flanges

- both flanges at the LCA rear attachment point are missing.
- LCA rear attachment points that have non-factory welded flanges or non-factory flange reinforcements.

**NOTE:** During the permanent repair, at least one flange must be present to properly locate the reinforcement bracket.

#### Permanent Repair

The permanent repair involves installing four reinforcement brackets on the subframe. These reinforcement brackets will be installed:

- under the rear body mount section of the subframe.
- over the LCA rear attachment flanges.

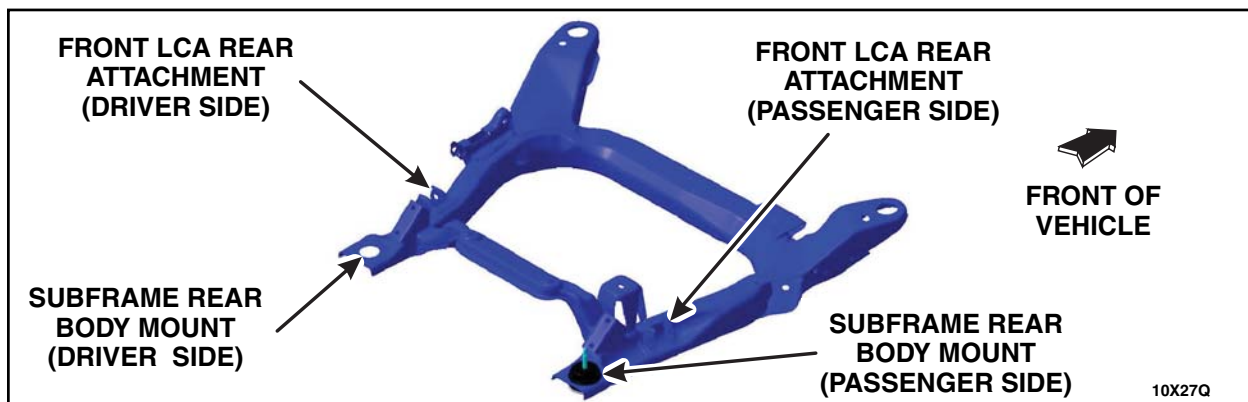
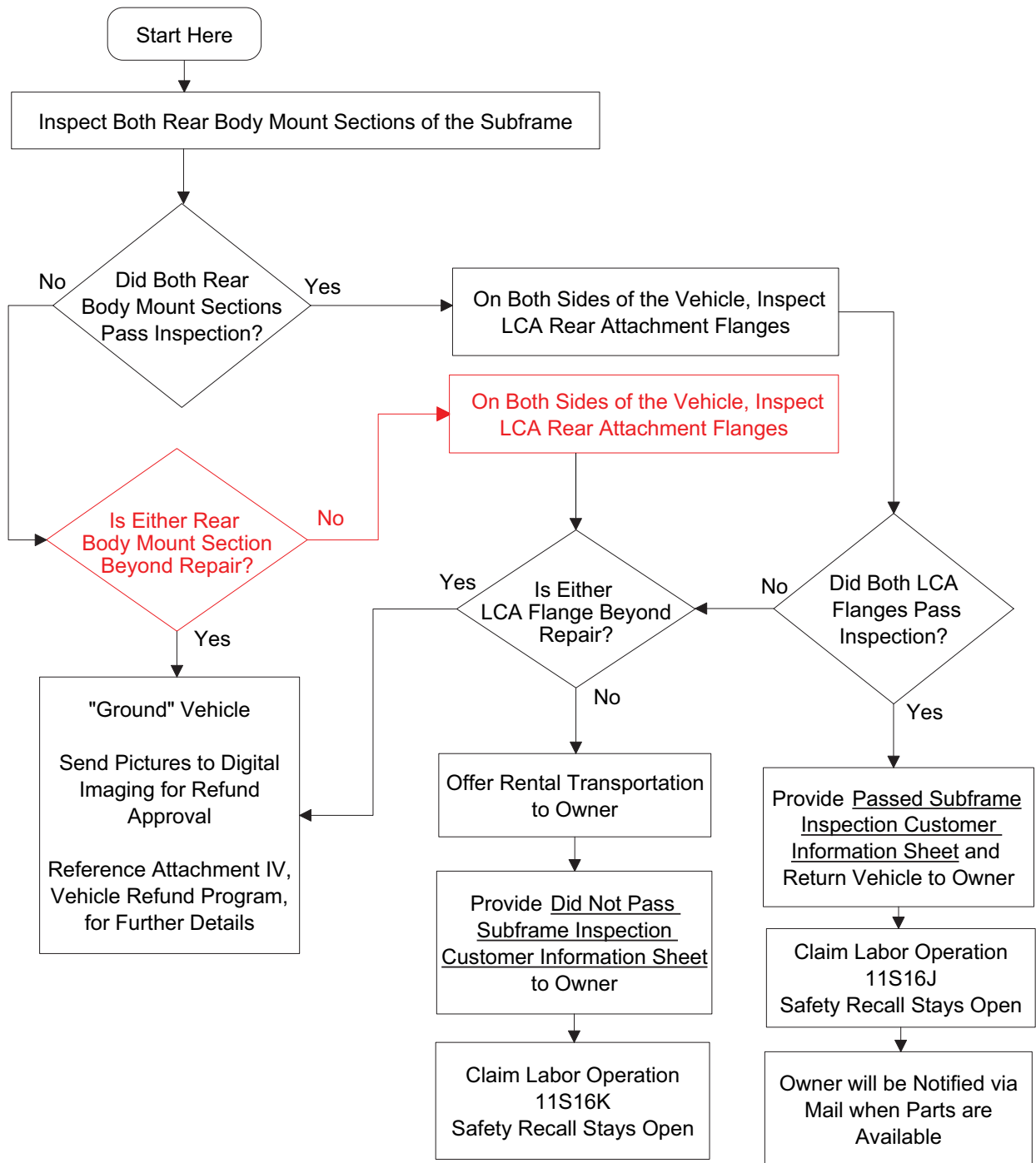


FIGURE 1



**NEW ! REPAIR FLOWCHART**



## SUBFRAME REAR BODY MOUNT INSPECTION

1. With the gear selector in NEUTRAL, position the vehicle on a hoist and lift the vehicle. For additional information, refer to the WSM, Section 100-02.
2. Inspect the driver and passenger side of the rear body mount area of the subframe for cracks, perforations, gaps and any non-factory welds or reinforcements. See Figures 1, 2, 3 and 4.

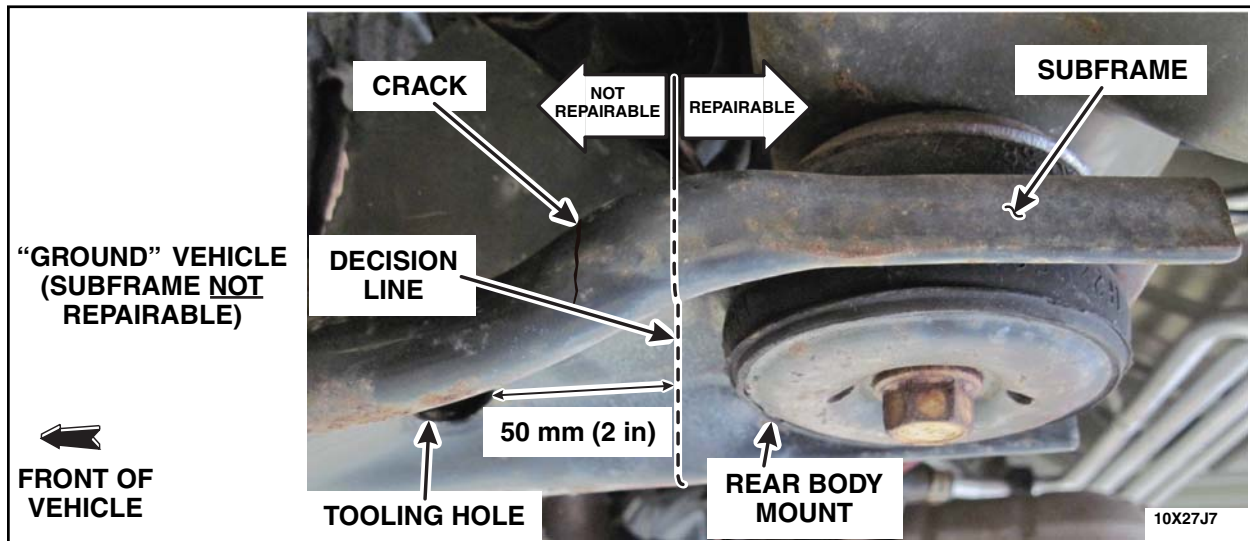


FIGURE 1

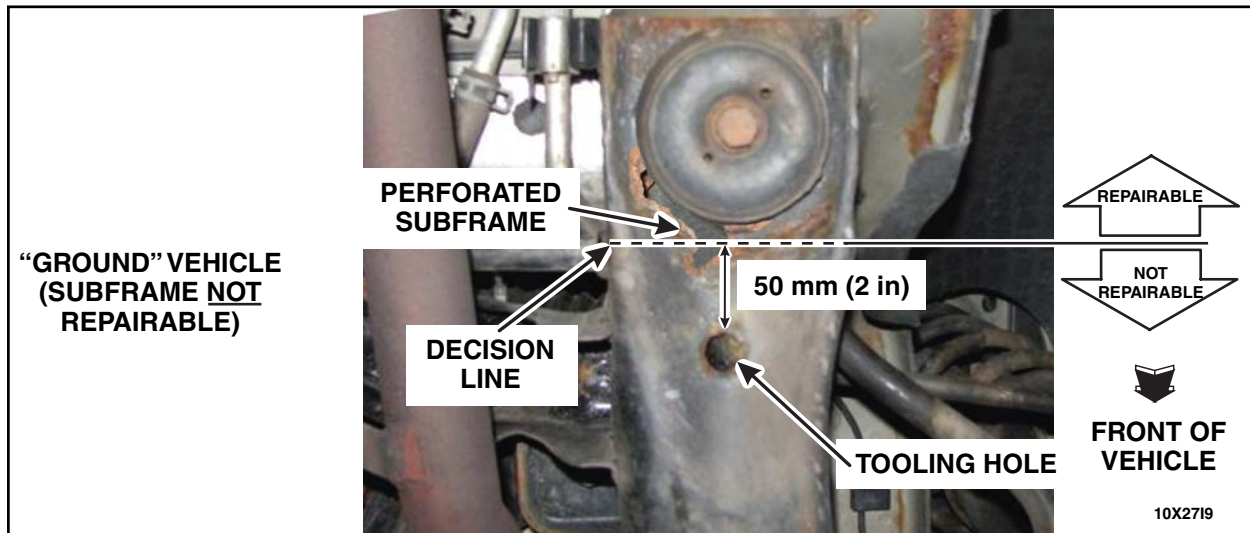


FIGURE 2



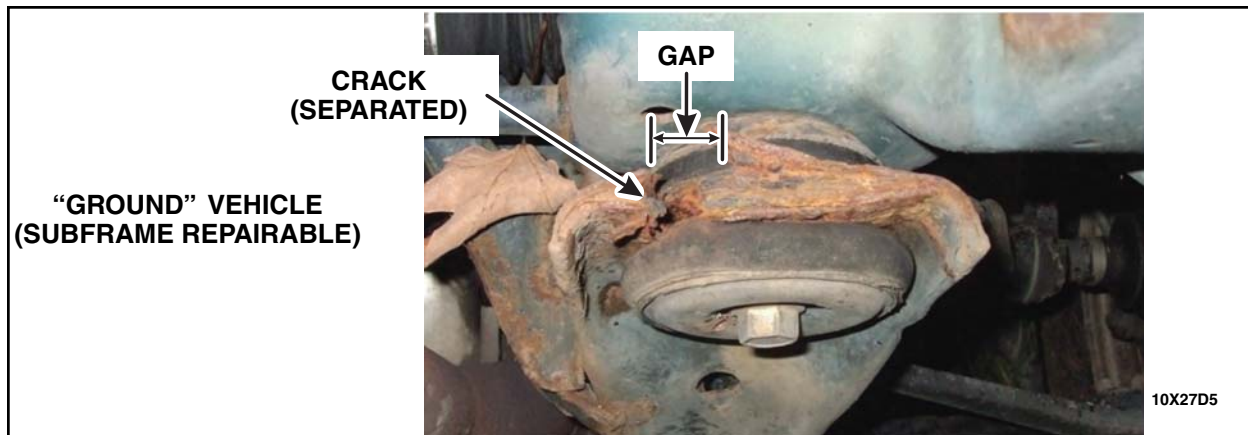


FIGURE 3



FIGURE 4

**NOTE:** A narrow crack at the end of the subframe that **is not** separating does not justify grounding the vehicle. See Figure 4.

### 3. Inspection Results:

- If non-factory welds or reinforcements are found, the subframe is beyond repair and pictures must be sent to Digital Imaging (DI) for vehicle refund consideration. Proceed to Digital Imaging Instructions on page 8.
- If a perforation or crack is forward of the decision line, the subframe is beyond repair and pictures must be sent to Digital Imaging (DI) for vehicle refund consideration. Proceed to Digital Imaging Instructions on page 8.
- If perforation is located behind the decision line, the vehicle must be "grounded". Proceed to the LCA Rear Attachment Flange Inspection on page 5 to see if the subframe is beyond repair.
- If there is a crack rearward of the body mount that has become a gap greater than 3 mm (0.12 in), the vehicle must be "grounded". Proceed to the LCA Rear Attachment Flange Inspection on page 5 to see if the subframe is beyond repair.
- If none of the above apply, proceed to LCA Rear Attachment Flange Inspection on page 5.



## LOWER CONTROL ARM REAR ATTACHMENT FLANGE INSPECTION

1. Remove both front wheels. For additional information, refer to the WSM, Section 204-04.
2. Using a hand-held wire brush, clean all loose rust, scale, and debris from both surfaces of the driver and passenger side of the subframe lower control arm (LCA) rear attachment flanges. See Figure 1.

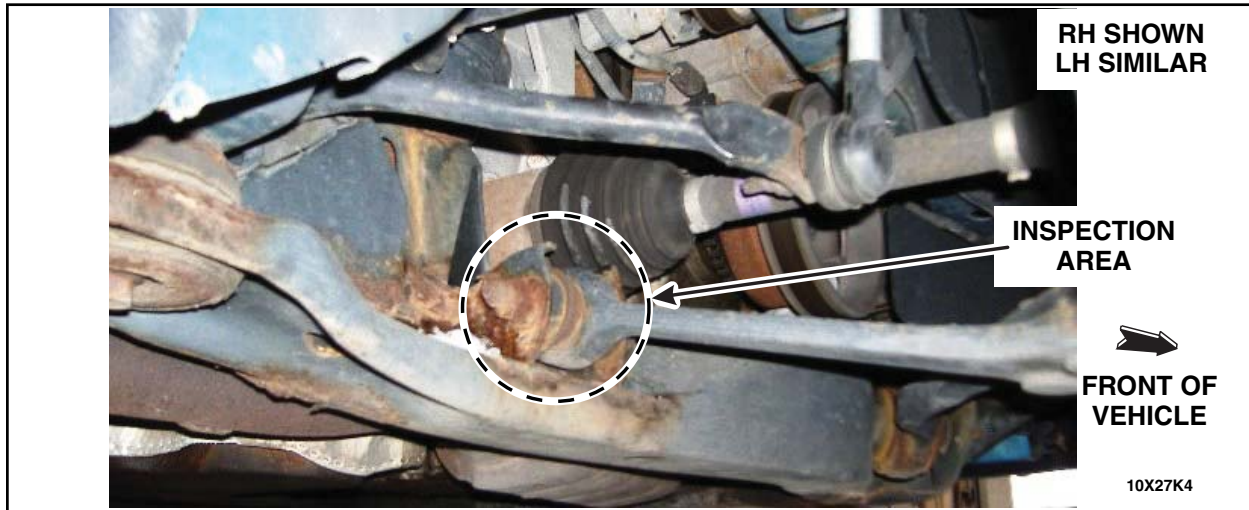


FIGURE 1

3. Inspect both surfaces of the LCA rear attachment flanges on the driver and passenger side of the subframe for cracks, perforations, excessive loss of metal, non-factory welded flanges or reinforcements. See Figures 2, 3, 4 and 5.

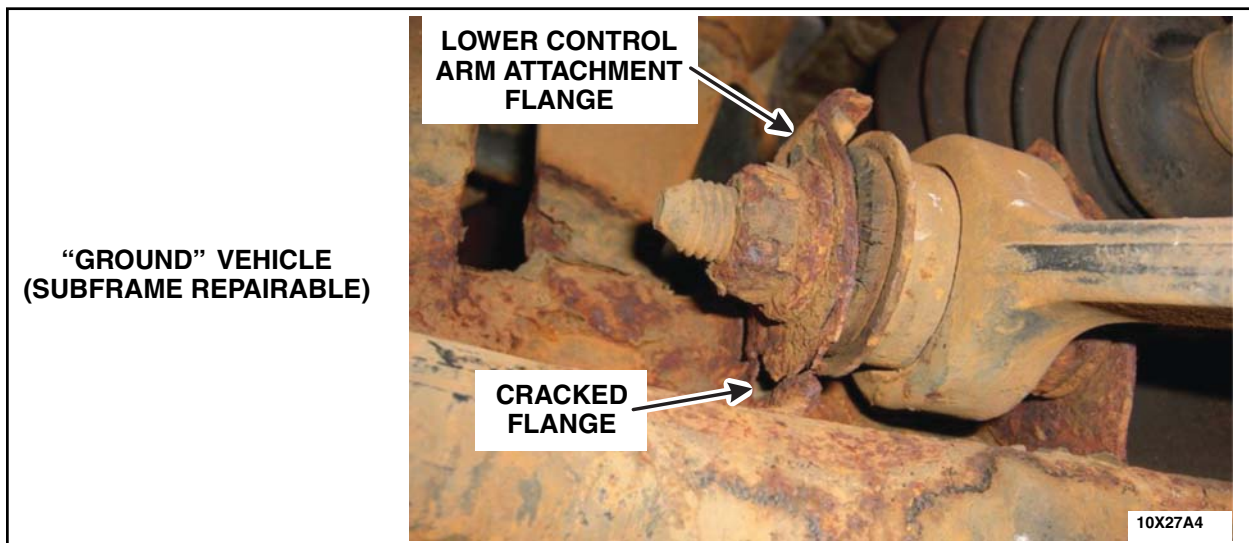
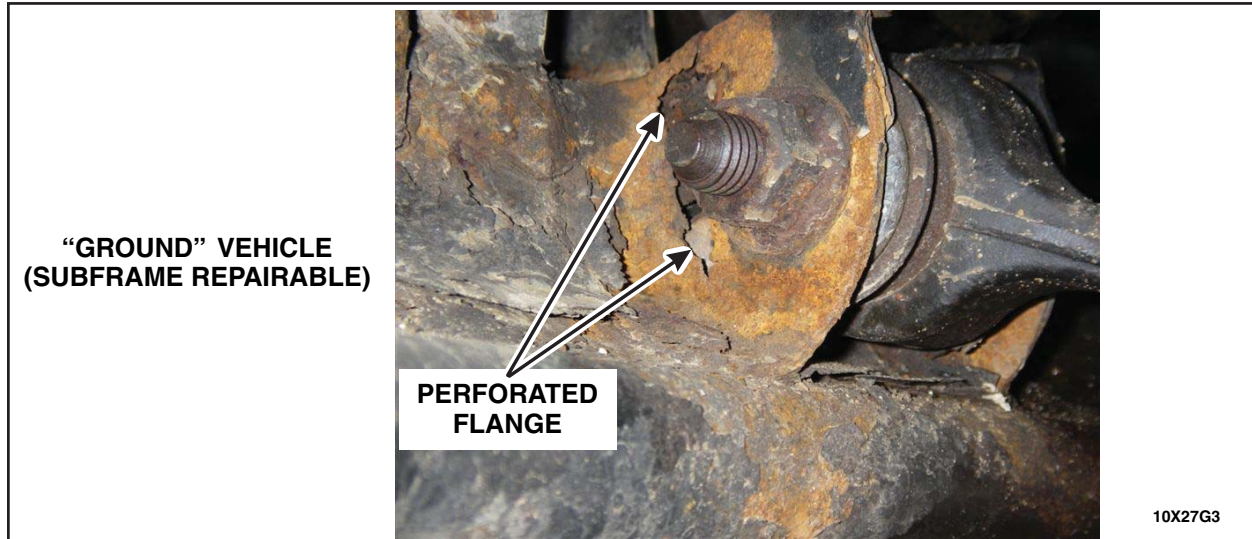


FIGURE 2





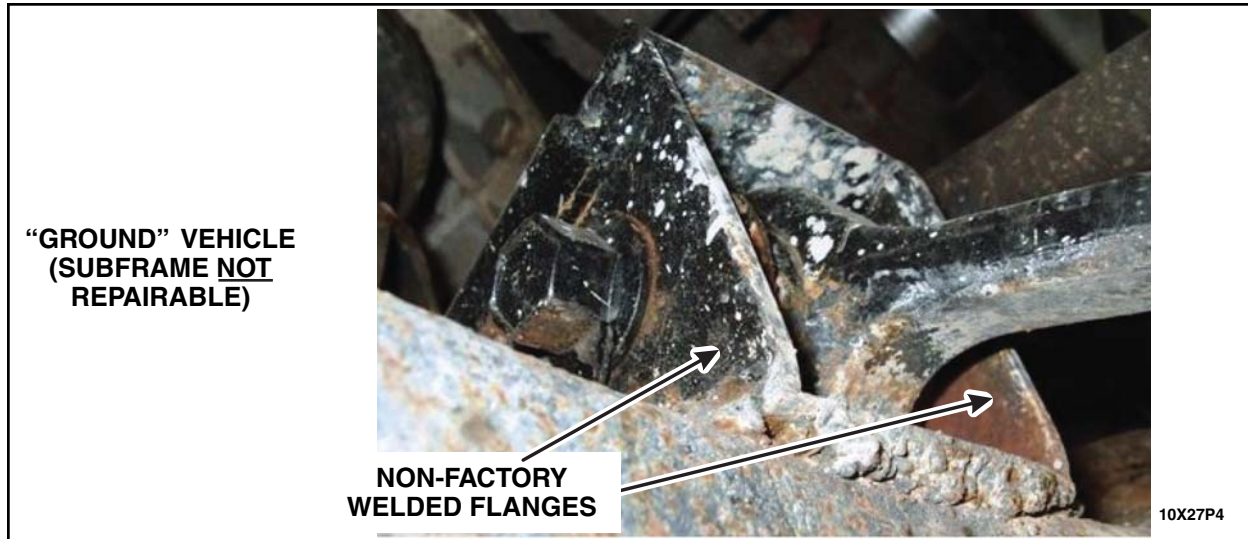
**FIGURE 3**



**FIGURE 4**

**NOTE:** A flange that is as thin or thinner than the one shown in Figure 4 should be "grounded".





**FIGURE 5**

4. Install both front wheels. For additional information, refer to the WSM, Section 204-04.

5. Inspection Results:

- If non-factory welds or reinforcements are found, the subframe is beyond repair and pictures must be sent to Digital Imaging (DI) for vehicle refund consideration. Proceed to Digital Imaging Instructions on page 8.
- If both LCA rear attachment point flanges are missing, the subframe is beyond repair and pictures must be sent to Digital Imaging (DI) for vehicle refund consideration. Proceed to Digital Imaging Instructions on page 8.
- If a crack, perforation or excessive metal loss is found, "ground" the vehicle until reinforcement brackets are available. Offer the customer rental transportation and provide them with a copy of the Did Not Pass Subframe Inspection Customer Information Sheet.
- If subframe passed the inspection, return the vehicle to the owner and provide them with a copy of the Passed Subframe Inspection Customer Information Sheet.



## DIGITAL IMAGING INSTRUCTIONS

### Required Pictures for Vehicles Beyond Repair

Send the following pictures:

- One picture of the Vehicle Certification (VC) Label showing the Vehicle Identification Number (VIN). See Figure 1.
- One picture of the vehicle from the rear passenger side. Picture must clearly show the trim level of the vehicle. See Figure 2.



FIGURE 1



FIGURE 2

- Three clear close up pictures showing why the subframe cannot be repaired. If a vehicle is beyond repair due to a crack or perforation, pictures must include a ruler to show how far away the crack or perforation is from the tooling hole.

**NOTE:** The angle at which the picture should be taken depends on the reason the vehicle is beyond repair. Refer to the following examples for guidance.

Take three close up pictures from the side of the subframe showing the crack and the tooling hole. In order to make a determination, the evaluator will need to be able to see the crack in relationship to the tooling hole. See Figure 3.



FIGURE 3 - Proper angle for a cracked subframe



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Take three close up pictures from the bottom of the subframe showing the perforation and the tooling hole. In order to make a determination, the evaluator will need to be able to see the perforation in relationship to the tooling hole. See Figure 4.



**FIGURE 4 - Proper angle for a perforated subframe**

Take three close up pictures that clearly show the location and extent of the non-factory welds and/or reinforcements. See Figure 5.



**FIGURE 5**

If the LCA rear attachment point is missing both flanges, take three close up pictures of the area where the missing flanges were welded to the subframe.



## Downloading Digital Imaging Software

Non DI dealers can download the Digital Imaging software from the PTS website by following these steps:

- Login to PTS website.
- Click on the “Tech Hotline” tab.
- Click on the “Digital Imaging Home Page” link.
- Click on the “Online Training” tab and watch all of the training sections prior to implementing the software download steps.

**Important:** The training sections will cover the Digital Imaging installation process.

- Select the download tab and click on the “Digital Image Full Install” link to download the software (using the computer you have chosen for Digital Imaging).

**NOTE: 11S16 claims must be submitted under the 11S16 routing. 11S16 claims submitted under a different routing group will be processed and returned to the dealership without resolution. The dealership will be responsible for resubmitting the claim under the correct routing group.**

### Routing Group Setup for 11S16

- The 11S16 images will be submitted under a new routing group, which must be setup in the Dealer Configuration tool, located on the Digital Imaging Home Page.
- If your dealership will only be submitting claims for the 11S16, you will only need to enter your name once and select 11S16 in the routing column.
- **If your dealership is currently using the Digital Imaging application to submit claims for any other program, an additional routing group for the 11S16 will need to be setup in the Dealer Configuration tool.**
- In the Dealer Configuration tool, if one individual will be submitting claims under multiple routing groups, such as Digital Imaging and 11S16, the recommended process is to enter the individuals name one time for each different routing group.
- When entering names in the Dealer Configuration tool, it is recommended that the user add a middle initial to match the first letter of the routing group name.

### Dealer Configuration Example

- Don Reed from dealership P&A Code: 11111 will be submitting images for Digital Imaging Prior Approvals and for the 11S16 program.
- Because Don Reed will be submitting images for two different programs, Don will be entering his name twice in the Dealer Configuration tool.
- Don will enter the following names
  - o “Don **D** Reed” for the “**D**igital Imaging” routing
  - o “Don **W** Reed” for the “11S16” (**W**indstar) routing.



### Required Equipment for the Digital Imaging Application

The digital imaging application is only supported on **Windows XP Professional** or **Windows 7 Professional with XP Mode** installed.

Digital Imaging recommends the following camera brands for ease of use and quality of images:

- Kodak Easyshare
- Canon Powershot - A Series
- Sony Point & Shoot - Cybershot Models

**NOTE:** It is preferred to use a digital camera that supports the PTP (Picture Transfer Protocol)

**NOTE:** The DI software application has a 3.5 Megapixel limitation. Most cameras are shipped from the factory pre-set at the highest megapixel setting. Prior to capturing images, ensure that your camera is set at a Quality Setting less than 3.5 Megapixels.

### DI Technical Information Support (TIS)

For Digital Imaging software, website, connectivity, image upload, and camera support assistance, please complete a "TIS Assistance Request Form" located on the PTS / Tech Hotline page.

- Access the PTS Website
- Select the Tech Hotline button
- Select TIS Assistance Request Form (left side)
- Select the Digital Imaging button
- Complete the TIS Assistance Request and click Continue
- Optional - Enter a cell phone number if you would like a text message when a response has been posted to PTS
- Click Submit

